

Application No. 10/076,071  
Amendment dated October 3, 2007  
Reply to Office Action dated April 4, 2007

### **REMARKS/ARGUMENTS**

After the above amendments, Claims 531-542, 547-548, 550-552, 555, 558-560, 569-576 and 581 are pending.

#### **A. Rejection Under 35 U.S.C. § 112**

The Examiner has rejected Claims 531-542, 544-548, 550-555 and 558-580 under 35 U.S.C. § 112, first paragraph, as lacking enablement for the full scope of the claims. Applicants traverse this rejection for the reasons already of record and for the following additional reasons.

The presently pending claims are directed to peptides containing two metal-binding sites — the metal binding site of P<sub>1</sub> and the metal binding site of P<sub>2</sub>. The testing of several such peptides<sup>1</sup> is described in the Declaration of Dr. David Bar-Or (“Bar-Or Declaration”), submitted with Applicant’s April 20, 2006 response. The peptides were tested in a variety of assays which demonstrated their ability to bind copper and inhibit angiogenesis, and the Bar-Or Declaration provides 20+ working examples which demonstrate the efficacy of the presently claimed metal-binding peptides having two metal-binding sites. Indeed, these peptides consistently showed efficacy in the various assays and were generally the most effective of the peptides tested. Applicants submit that the data presented in the Bar-Or Declaration confirm and establish that the guidance presented in the specification is sufficient to enable one of skill in the art to make and use the invention as currently claimed without undue experimentation.

It should be noted that Applicants need not describe all actual embodiments of their invention. See MPEP § 2164.02. The data in the Bar-Or Declaration in combination with that in the specification demonstrate that a wide variety of peptides coming within the scope of the claims are effective in inhibiting angiogenesis. As noted above, Applicants have now provided in excess of 20 working examples and, therefore, submit that there are certainly sufficient working examples of record to support a finding of enablement of the currently pending claims.

The Examiner contends that the Bar-Or Declaration describes assays that use complexes

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<sup>1</sup> The peptides with two metal-binding sites that were tested are: DAHGGOAH, DAHGMTCARC, DAHGMTCANC, HAHGMTCANC, DAHKGMTCANC and DAHG-γE-CG.

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of copper bound to the metal-binding peptides to demonstrate the inhibition of angiogenesis, whereas the claims are drawn to a metal binding peptide that does not have a metal bound to it. However, this is incorrect. In those assays where a peptide/copper ratio is stated, this is the ratio of the amount of a peptide without a metal ion bound to it to the amount of unbound copper which is used in the assay. It is not the ratio of the amount of peptide to the amount of copper in a complex. Thus, these assays demonstrate the efficacy of peptides without a metal ion bound to them, as covered by the presently pending claims.

For all of the foregoing reasons, Applicants request the Examiner's rejection be withdrawn.

B. Rejection Under 35 U.S.C. § 103

The Examiner has rejected Claims 531-539, 544, 559-567, 569-578 and 580 on the basis that they would have been obvious over Harford and Sarkar, *Acc. Chem. Res.*, **30**:123-130 (1997) (Harford and Sarkar) in view of Hu, *J. Cell. Biochem.*, **69**:326-335 (1998) (Hu).

As can be seen, Claim 546 was not included in this rejection. By the above amendments, the limitation of Claim 546 has been incorporated into Claim 531. Accordingly, this rejection does not apply to the presently pending claims, and it is requested that the Examiner withdraw it.

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### **CONCLUSION**

Based upon the foregoing, Applicants believe that all of the pending claims are in condition for allowance and such disposition is respectfully requested. In the event that a telephone conversation would further prosecution and/or expedite allowance, the Examiner is invited to contact the undersigned.

Respectfully submitted,

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